ß5

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/256,075	02/24/1999	BONG YONG SONG	4422-004	9348

7590   05/21/2004

LOWE HAUPTMAN GOPSTEIN GILMAN & BERNER
1700 DIAGONAL ROAD
SUITE 310
ALEXANDRIA, VA 22314

EXAMINER
MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
2686	13

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *24 February 2003* .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,9 and 10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,9 and 10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

Drawings

1.   The drawings are objected to under 37 CFR 1.84(h)(5). Figure 3 on sheet 3, does

not follow the specification description and claims limitation, Examiner suggests that

above the connecting line between box 34 and 35, and the connecting line between box

37 and 38 "YES" changes to "NO". Also above the block 36 and above the block 39 "NO"

changes to "YES" .

A proposed drawing correction is required in reply to the Office action to avoid

abandonment of the application. The objection to the drawings will not be held in

abeyance.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner in which the invention was
> made.

3.   Claims 1, 9, are rejected under 35 U.S.C. 103(a) as being unpatentable

over.Patsiokas et al. (US Patent Number 5,203,012) in view of Shin et al. (US Patent

Number 5,687,171).

Regarding claim 1, Patsiokas teaches a channel assignment method for multi-FA

(frequency Assignment) cellular systems in which a base station communicates with a

plurality of mobile stations (see figure 2, col 2 lines 65-67, col 3 lines 1-38), **the method**

comprising the steps of:

comparing a first threshold value with received power when the base station

receives a new call **request** (see figure 2, 208, col 3 lines 54-57);

if the received power is less than the first threshold value (see figure 2, 208, col 3

lines 56-59);

assigning a **first** traffic channel in a first FA of the request (see figure 2, 210

allocate corresponding radio channel, col 3 lines 56-59);

otherwise;

comparing a **second** threshold value (212) with received power of the second FA

(see figure 2, 214, col 4 lines 2-11); and

if the strength or received power is less than the second threshold

assigning a **second** traffic channel in the second FA (see figure 2, 216, col 4 lines 10-12);

and

otherwise;

rejecting the request (see figure 2, 218, reject corresponding radio channel, col 3 lines 10-

16). Patsiokas fails to teach a channel assignment method for a CDMA cellular system.

However Shin teaches method of allocation channels for CDMA cellular system (col 2

lines 15-20). Therefore, it would have been obvious to ordinary skill in the art at the time

the invention was made to combine the above teaching of Shin with Patsiokas, in order to

provide the optimum channel available at any given point in time from an interference

standpoint.

Regarding claim 9, Patsiokas teaches a method of channel assignment method for use in a multi-FA cellular system in which a base station communications a plurality of mobile stations, the method comprising the step of:

a.   receiving at the base station, a new call request from a mobile station in a first FA (see figure 2, 202, col 2 lines 65-68);

b.   determining a level of power received at the base station in the first FA as first FA received power (see figure 2, 204, col 3 lines 30-39);

c.   comparing a first threshold value with the first FA received power (see figure 2, 208, col 3 lines 54-57);

d.   if the first FA received power is less than the first threshold value (208, col 3 lines 56-59);

                assigning a first traffic channel in the first FA to the mobile station in

                response to the new call request (see figure 2, 210, col 3 lines 56-59);

                if the first FA received power is not less than the first threshold value

(212, col 4 lines 1-3);

                        determining levels of power received at the base station in FAs

                        other than the first FA (214, col 4 lines 4-10);

                        among the other FAs, determining the FA having the lowest level

                        of power level as the base station as a second threshold FA, and the

                        lowest level as second FA received power (see figure 2, 214 col 4

                        lines 6-11);

                        comparing a second threshold value with the second FA received

                        power (see figure 2, 214, col 4 lines 6-11);

if the second FA received power is less than the second threshold value, assigning a second traffic channel in the second FA to the mobile station in response to the new call request (See figure 2, 216, col 4 lines 10-12); otherwise, rejecting the new request (see figure 2, 218, col 4 lines 12-16). Patsiokas fails to teach a channel assignment method for a CDMA cellular system. However Shin teaches method of allocation channels for CDMA cellular system (col 2 lines 15-20). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching of Shin with Patsiokas, in order to provide the optimum channel available at any given point in time from an interference standpoint.

4.   Claims 2, 10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Patsiokas et al.(US Patent Number 5,687,171) in view of Shin (US Patent 5, 687,171) in further view of well known prior art (MPEP 2144.03).

Regarding claim 2, Patsiokas teaches a method comprising the step of assigning a traffic channel in the first FA of the request, if there is an available channel when there is a new call request (see figure 2, col 2 lines 40-50). The combination of Patsiokas and Shin does not mention that assigning a traffic channel in the first FA of the request, if there is an available channel when a base station receives a handoff call request. However the examiner takes official notice of the fact that assigning a traffic channel, if there is an available channel when a base station receives a handoff call is well known in the art. Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine the above teaching with Patsiokas modified by Shin, in order to

control the allocated received power by preventing wasting additional power, when the

mobile moves to different areas.

Response to Arguments

5.   Applicant's arguments with respect to claims 1-2, 9-10, have been considered but

are moot in view of the new ground(s) of rejection.

Conclusion

6.   **Any responses to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications indented for entry)

Or:

(703) 308-6306, (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II. 2121

Crystal Drive, Arlington. Va., sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

Any inquiry concerning this communication or earlier communication from the

examiner should be directed to Melody Mehrpour whose telephone number is (703) 308-

7159. The examiner can normally be reached on Monday through Thursday (first week of

bi-week) and Monday through Friday (second week of bi-week) from 6:30 a.m. to 5:00

p.m.

If attempt to reach the examiner are unsuccessful the examiner's supervisor,

Marsha Banks-Harold be reached (703)305-4379.

NM

May 14, 2004

CHARLES APPIAH
PRIMARY EXAMINER